

IN THE CLAIMS:

Please cancel Claim 29.

1. (Previously Presented) A coordinate input apparatus comprising:  
a coordinate plate having a plurality of pieces of coded coordinate information composed of dots, each corresponding to an X-coordinate value, and having a plurality of pieces of coded coordinate information composed of dots, each corresponding to a Y-coordinate value, said plurality of pieces of coded coordinate information being formed at predetermined intervals on said coordinate plate, wherein the intervals between the pieces of coded coordinate information are wider than intervals between the dots in a piece of the coded coordinate information;  
input-indicating means for indicating a position of the coordinate plate to be input and for detecting the coordinate information in the vicinity of the position; and  
processing means for determining X-coordinate values and Y-coordinate values from the coordinate information detected by said input-indicating means and for determining the coordinate of the input position on the basis of the X-coordinate values and Y-coordinate values.
2. (Previously Presented) An apparatus according to Claim 1, wherein the coded coordinate information comprises a dot array, at least one part of said dot array corresponding to X-coordinate values being different from another part of said dot array corresponding to Y-coordinate values.

3. (Previously Presented) An apparatus according to Claim 2, wherein said dot array of the coded coordinate information is formed of a plurality of rows and a plurality of columns.

4. (Previously Presented) An apparatus according to Claim 2, wherein said dot array of the coded coordinate information has an L-shaped arrangement.

5. (Previously Presented) An apparatus according to any one of Claims 2 to 4, wherein said dot array of the coded coordinate information has an arrangement wherein dots are formed with predetermined intervals.

6. (Original) An apparatus according to Claim 1, further comprising a display apparatus formed as an input-output integrated type.

7. (Original) An apparatus according to Claim 6, wherein said coordinate plate and said display apparatus are formed with a space therebetween.

8. (Original) An apparatus according to Claim 6, wherein said coordinate plate and said display-apparatus are disposed close to each other and said coordinate plate also serves as a part of said display apparatus.

9. (Previously Presented) An apparatus according to Claim 6, wherein said plurality of pieces of coded coordinate information are recorded on said coordinate plate so as to be positionally related to a plurality of display pixels forming display images of said display apparatus.

10. (Previously Presented) An apparatus according to Claim 9, wherein the plurality of pieces of coded coordinate information are recorded so as to be located between said plurality of display pixels.

11. (Previously Presented) A method of inputting a coordinate into a coordinate input apparatus by an input-indicating means for indicating a position to be input, the method comprising the steps of:

reading image information from a coordinate plate by the input-indicating means, the coordinate plate having a plurality of pieces of coded X-coordinate information composed of dots, and having a plurality of pieces of Y-coordinate information composed of dots, wherein the plurality of pieces of coded X- and Y-coordinate information are formed at predetermined intervals which are wider than intervals between the dots in a piece of the coded coordinate information;

extracting first coordinate information from the read image information;

determining coordinate values in the X- or Y-axis in the first coordinate information using the extracted first coordinate information;

extracting second coordinate information using the read image information;

determining coordinate values in the X- or Y-axis in the second coordinate information using the extracted second coordinate information;

determining coordinate values of the input position indicated by the input-indicating means in the X- and Y-axes on the basis of the coordinate values in the first coordinate information and the coordinate values in the second coordinate information; and

inputting the determined coordinate values of the input position in the X- and Y-axes.

12. (Previously Presented) A method of inputting a coordinate into a coordinate input apparatus by an input-indicating means for indicating a position to be input, the method comprising the steps of:

reading image information from a coordinate plate by the input-indicating means, the coordinate plate having a plurality of pieces of coded X-coordinate information composed of dots, and having a plurality of pieces of Y-coordinate information composed of dots, wherein the plurality of pieces of coded X- and Y-coordinate information are formed at predetermined intervals which are wider than intervals between the dots in a piece of the coded coordinate information;

extracting first coordinate information located in a central region of the image information read;

determining coordinate values in the X- or Y-axis in the first coordinate information from the extracted first coordinate information;

estimating and extracting a position of second coordinate information located in the region of said image information using the extracted first coordinate information;

determining coordinate values in the X- or Y-axis in the second coordinate information using the extracted second coordinate information;

determining coordinate values of the input position indicated by the input-indicating means in the X- and Y-axes on the basis of the determined coordinate values in the first coordinate information and the determined coordinate values in the second coordinate information; and

inputting the determined coordinate values of the input position in the X- and Y-axes.

13. (Previously Presented) A coordinate input apparatus comprising:  
a coordinate plate having a plurality of pieces of coded coordinate information composed of dots, each corresponding to an X-coordinate value, and having a plurality of pieces of coded coordinate information composed of dots, each corresponding to a Y-coordinate value, said plurality of pieces of coded coordinate information being formed at predetermined intervals on said coordinate plate in a coordinate input effective region forming an X-Y coordinate plane, wherein the intervals between the pieces of coded coordinate information are wider than intervals between the dots in a piece of the coded coordinate information; and

input-indicating means comprising means for detecting the coded coordinate information of said coordinate plate,

wherein said coordinate plate has a layered structure comprising a plurality of layers deposited in a thickness direction, the coordinate information being stored between the layers of said layered structure.

14. (Previously Presented) A coordinate input-output apparatus comprising:

a coordinate plate having a plurality of pieces of coded coordinate information composed of dots, each corresponding to an X-coordinate value, and having a plurality of pieces of coded coordinate information composed of dots, each corresponding to a Y-coordinate value, said plurality of pieces of coded coordinate information being formed at predetermined intervals on said coordinate plate in a coordinate input effective region forming an X-Y coordinate plane, wherein the intervals between the pieces of coded coordinate information are wider than intervals between the dots in a piece of the coded coordinate information;

input-indicating means comprising means for detecting the coded coordinate information on said coordinate plate,

wherein said coordinate plate has a layered structure comprising a plurality of layers deposited in a thickness direction, the coordinate information being stored between the layers of said layered structure; and

displaying means disposed so as to oppose said coordinate plate and being capable of displaying two-dimensional images.

15. (Previously Presented) A coordinate input-output apparatus comprising:

displaying means capable of displaying two-dimensional images;

a coordinate plate having a plurality of pieces of coded coordinate information composed of dots, each corresponding to an X-coordinate value, and having a plurality of pieces of coded coordinate information composed of dots, each corresponding to a Y-coordinate value, said plurality of pieces of coded coordinate information being formed at predetermined intervals on said coordinate plate in a coordinate input effective region forming an X-Y coordinate plane, wherein the intervals between the pieces of coded coordinate information are wider than intervals between the dots in a piece of the coded coordinate information; and

input-indicating means comprising means for detecting the coded coordinate information of said coordinate plate,

wherein a surface of said coordinate plate having the coded coordinate information recorded thereon opposes and is bonded to a surface of said displaying means.

16. (Previously Presented) An apparatus according to claim 14 or 15, wherein the coded coordinate information is recorded to be positionally related to a plurality of display pixels forming display images of said displaying means.

17. (Previously Presented) An apparatus according to claim 13, wherein the coded coordinate information is independently and intermittently recorded on said coordinate plate.

18. (Previously Presented) An apparatus according to Claim 16, wherein the coded coordinate information is independently and intermittently recorded on said coordinate plate.

19. to 22. (Cancelled).

23. (Previously Presented) A coordinate input-output unit of a coordinate input apparatus comprising:

a coordinate plate having a plurality of pieces of coded coordinate information composed of dots, each corresponding to an X-coordinate value, and having a plurality of pieces of coded coordinate information composed of dots, each corresponding to a Y-coordinate value, said plurality of pieces of coded coordinate information being formed at predetermined intervals on said coordinate plate, wherein the intervals between the pieces of coded coordinate information are wider than intervals between the dots in a piece of the coded coordinate information; and

a display apparatus integrated with said coordinate plate together,



wherein the coordinate information is recorded on said coordinate plate so as to be positionally related to a plurality of display pixels forming display images of said display apparatus.

24. (Previously Presented) A unit according to Claim 23, wherein the coded coordinate information is recorded so as to be located between the display pixels.

25. (Previously Presented) A coordinate plate of a coordinate input apparatus comprising:

a plurality of pieces of coded coordinate information composed of dots, each corresponding to an X-coordinate value; and

a plurality of pieces of coded coordinate information composed of dots, each corresponding to a Y-coordinate value,

said plurality of pieces of coded coordinate information being formed at predetermined intervals on said coordinate plate, wherein the intervals between the pieces of coded coordinate information are wider than intervals between the dots in a piece of the coded coordinate information.

26. (Previously Presented) A coordinate plate according to Claim 25, further comprising a display apparatus which is integrated with said coordinate plate, wherein the plurality of pieces of coded coordinate information are recorded on said

coordinate plate so as to be positionally related to a plurality of display pixels forming display images of said display apparatus.

27. (Previously Presented) A coordinate plate according to Claim 26, wherein the coded coordinate information is recorded so as to be located between said display pixels.

28. (Previously Presented) A coordinate plate according to Claim 25, wherein the coded coordinate information comprises a dot array, and at least one part of said dot array corresponding to X-coordinate values is different from another part of said dot array corresponding to Y-coordinate values.

29. (Cancelled).